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EXCISION OF THE HIP-JOINT IN CHRONIC ARTHRITIS OR HIP-DISEASE.

WITH ANALYSIS OF SEVEN CASES OF THE OPERATION.

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IN preparing a paper for the Philadelphia County Medical Society, I have chosen the subject of Excision of the Hip-Joint in Cases of Chronic Arthritis or Hip-Disease, because I believe it to be a matter of great importance, and one concerning the value of which there has been, and still is, a very different estimate formed by different surgeons. I take pleasure, therefore, in contributing my share towards the practical study of this operation. I have excised the hip-joint for disease seven times, and an analysis of these cases will form the basis of this paper.

Case I.—Clinton L., 4 years of age, was admitted into the Children's Hospital, December 1, 1869, on account of hip-disease of the right hip. The disease had existed for about one year; during seven months of this time he had been under treatment at the Pennsylvania Hospital. After admission into the Children's Hospital he improved for a while, but in November, 1870, he was obliged to return to bed on account of an abscess forming in the upper part of the thigh. While out of bed he had worn an apparatus to keep up extension and counter-extension upon the limb, and while in bed extension was made by means of a weight and pulley. After the formation of the abscess, his health failed very much, and during December and January he was much prostrated by persistent diarrhœa. It was determined, therefore, to make an effort to save his life and remove the disease by an excision of the hip-joint. The operation was done January 28, 1871, by a single incision behind the trochanter in the line of the limb, slightly curved around the trochanter. The head and neck of the femur were easily separated from their attachments, raised from their position, and removed below the trochanters by means of a saw carried below the bone, and some diseased portions of bone were removed from the acetabulum by a gouge. The wound was closed by sutures, dressed with sweet oil, and extension made to the limb by adhesive plaster with weight and pulley. The operation was followed by no ill effects: he had no unfavorable symptoms, and began at once to improve. The diarrhœa ceased, and, as the wound granulated and closed, he gained health and strength. After he left the bed he grew stout and robust. He walked well without crutch or cane, wearing a shoe with the sole and heel thickened about three-quarters of an inch more than the other. He engaged in active sports with the other children, and while playing "tag" would not hesitate to escape the pursuit by climbing into the basement-window. He was discharged well, with the wound closed and the cicatrix well hardened, in October, 1871.

Case II.—Elizabeth S., 5 years of age, was admitted into the Children's Hospital, February 18, 1871, suffering from hip-disease of the left hip-joint, and with a large and painful abscess on the inner side of the thigh. The disease had existed for about two years, and was believed to have followed a fall from a crib. Since that time she had complained chiefly of pain in the knee. The abscess was opened upon the day of admission, and was followed by temporary relief. Her health, however, soon began to fail very rapidly, and about the beginning of May two other abscesses began to approach the surface. One of these was situated on the outer side of the thigh, and the other pointed above Poupart's ligament. Diarrhœa also attacked the little patient, and she became much emaciated and exhausted. She was so much reduced by these causes, and had such marked hectic fever, that it was thought she could live but a very short time. The abscess above Poupart's ligament opened during the night of May 19. It had been resolved to give her a chance for life by excising the hip-joint, and the operation was done May 20, 1871. Not only was the femur diseased, but the acetabulum and rami of pubes and ischium were involved. Portions of each of these bones were removed, and the denuded surface scraped by the gouge and chisel; the section of the femur was made below the trochanters. The abscess which pointed and discharged above Poupart's ligament was found to communicate with the one in the thigh by an opening through the membrane of the obturator foramen of the innominate bone. A twisted cord of oakum was passed through the wound made for the excision, then carried through the obturator foramen and along the sinus to the opening made by the abscess on the abdomen above Poupart's ligament. This seton was allowed to remain, in order to drain away the discharges. Sutures were inserted to bring the edges of the wound together, olive oil was applied as a dressing, and extension was made by weight and pulley.

The patient, though in such a weak condition, was not depressed by the operation, but soon began to improve. The hectic fever and the diarrhœa gradually lessened and disappeared. The wound granulated and in great part healed. The child was able to sit up in a chair, and gained strength, flesh, and appetite. Her life was undoubtedly much prolonged, and a great amount of freedom from pain was derived from the operation. About seven months after the operation, the liver began to enlarge from amyloid degeneration, which continued steadily to increase. Diarrhœa returned, and at times was very persistent. She emaciated exceedingly, and on the 6th of July, 1872, she died, nearly fourteen months after the operation.

Case III.—Lewis C., 6 years of age, was admitted into the Children's Hospital, September 13, 1870, on account of chronic arthritis of the left hip-joint. He was placed in bed and treated by extension, but abscesses formed and opened on the outer part of the thigh. The child gradually lost flesh and strength, and it was determined to excise the hip-joint. This was done on May 25, 1872, nearly two years after his admission to the hospital. The head of the femur was found out of the acetabulum, lying on the dorsum of the ilium. The head of the femur and the under surface of the neck were carious. The acetabulum was also somewhat ulcerated. The wound did well, and the condition of the patient improved. By the 12th of June the greater part of the wound had healed, but long sinuses and ulcerations from the old abscesses still remained, and required incisions with the knife at several different times. At the time of his discharge—July 24, 1874—he could walk the length of the ward without crutch or cane, but some of the sinuses were not yet healed, and he remained pale, with the abdomen distended from amyloid enlargement of the liver and accumulations of gas in the intestines. He is now living at Germantown, and occasionally reports at the hospital.

Case IV.—Catherine G., 6 years of age, suffering from chronic arthritis of the left hip-joint, was admitted into the Children's Hospital, May 10, 1871. A large abscess gradually formed on the outer side of the thigh and extended from the great trochanter to the lower third of the thigh. It did not cause pain, but contained a large amount of pus. The pus was removed by the aspirator, but gradually accumulated again, and discharged by an opening in the lower part of the thigh. The patient became greatly emaciated and hectic; diarrhœa began and continued, notwithstanding every effort was made to check it. In this most debilitated condition, excision of the hip-joint was made on June 29, 1872. The femur was sawn, as usual, just below the trochanter, but the bone was found so much softened that it was deemed advisable to remove another section of about half an inch. The acetabulum was found perforated by ulceration. The after-treatment was by means of simple dressings of oil, and by extension with weight and pulley. The operation was followed by no bad symptoms, but by gradual improvement in general health, until she recovered flesh and color. She is now quite stout, with a good healthy color. The wound healed perfectly, though slowly, on account of the great extent of the abscess and consequent sinuses. Once after the wound had closed an abscess formed, and it opened again. The limb is useful to her in walking with a thick sole to the shoe, notwithstanding the additional portion which was removed on account of the extension of the disease in the femur. As yet she prefers the use of the crutch, but is gaining confidence as well as ability to do without it.

Case V.—James M. was admitted to the Children's Hospital, March 27, 1872. He was then 10 years of age, thin and weak. His mother died from consumption. During the preceding winter he had complained of pain in his knee. Upon examination, he was found to have chronic arthritis of the left hip. He gave at first no account of any injury; but, upon questioning him closely, he said that one day at school some boys had thrown him down and jumped upon him. He was treated by extension and counter-extension to the limb, and was sent to the Seashore Hospital at Atlantic City during the summer, to give him the benefit of sea-air and bathing. But his general health gradually failed more and more, and it was thought advisable to excise the joint. This was done on May 14, 1873. There was dislocation of the femur on the dorsum of the ilium. Ulceration had nearly destroyed the head of the femur, and the under surface of the neck was carious. The anterior and inferior portions of the rim of the acetabulum were extensively diseased, having sharp edges and being bare of periosteum. The head and neck of the femur were removed below the trochanters, and the diseased portions of the acetabulum cut out by the gouge. The after-treatment was the same as in the other cases. He shows no signs of depression after the operation, nor any ill effects from it. The wound gradually granulated, and in great part closed. He was discharged from the hospital March 23, 1874. He is now living with his parents, and able to go out on errands for household wants. He takes his crutch for use on the street, but is able to walk without it in the house. His general health is good, and his appetite excellent, though he is still thin.

Case VI.—Louis M. has had disease of the hip since 1871, when he was 6 years of age. He lived in Easton, and was treated there by several physicians. At first he was confined to bed, and had splints applied for nine months. Then an apparatus was given to him, and he was allowed to walk about with it. He was finally brought to the Children's Hospital, and admitted June 6, 1873. The disease was then far advanced, and his general health much debilitated. Shortly after admission the hip-joint was excised, and portions of the acetabulum removed, as well as the head and neck of the femur. The head and neck of the femur were almost entirely absorbed. All that remained of the head was a small nodule of cancellated structure. There were bands of cartilage binding the femur to the sides of the acetabulum, both on the inner and outer surfaces of the capsular ligament. The operation was very well borne. The wound has not yet entirely closed; there are two deep sinuses, with considerable swelling, indicating that there is caries still existing. He moves about the ward rapidly with a crutch, and can walk for a short distance without using it. He has been allowed to go to Atlantic City, and also to his home in Easton on a visit.

Case VII.—Daniel C., 7 years of age, was admitted into the Children's Hospital, April 22, 1874, on account of chronic arthritis of the right hip. He was very pale and emaciated. About four months previously he had received a fall, but was able to walk about during that day. The next day he complained of pain in the knee and hip, and was obliged to remain in bed. He was treated by extension with a weight. An abscess formed and discharged behind the trochanter. The limb became shortened, with very marked inclination of the pelvis. The knee was found, when he was admitted to the hospital, partially anchylosed, but there was a remarkable degree of motion at the hip. On account of the great impairment of his health, it was thought advisable to remove the diseased bone without unnecessary delay. Excision of the hip-joint was therefore done May 6, 1874. The head of the femur was found entirely separated by ulceration, and lying by itself in a pocket in the gluteal muscles, above the great trochanter. The acetabulum was occupied by the extremity of the neck of the femur, and was in good condition except at the lower part of its rim. The femur was divided below the trochanters, and the diseased portion of the acetabulum carefully cut away. The after-treatment was conducted upon the same principles as in the other cases. The patient reacted well after the operation. His pulse—already weak and frequent before the operation—became more rapid. His temperature two days before the operation was as high as 102°. The next day it was 101°, and the day of the operation 99°. The following day it went up to 104°, then gradually declined until it ranged a little above or below 100°, until May 12, six days after the operation, when the temperature increased to 105°. At the same time an erysipelatous inflammation showed itself at the wound, and extended both down the limb and up on the abdomen, and to the genital organs, with marked distention of the scrotum. The temperature declined, the respiration became difficult, vomiting began, and the patient died from exhaustion, May 17, on the twelfth day after the operation. This case is of special interest as being the only one, so far as I know, of erysipelas occurring in our Children's Hospital; and also the only one in the practice of the house, under the care of either Dr. Ashhurst or myself, in which a fatal result has been directly or indirectly the immediate consequence of excision of the hip-joint. The weather after the operation was cold and moist, and the erysipelas appears to have been due, in part, to unusual atmospheric changes.

The first point to which I would direct your attention in our study of these cases is *the cause of hip-disease*. Is it a constitutional disease, or is it due to inflammation resulting from injury? In one of the cases (VII.) the pain and inflammation followed so quickly after a fall as to leave no room for doubt that the injury was the direct and positive cause. In each of the other cases no one injury was distinctly present to the mind of the patient or

the friends as the cause of the disease. But, upon inquiry, some fall, blow, or other injury could almost always be recalled as having occurred at or about the time of the beginning of pain. This coincides with my experience in numerous other cases of hip-disease not operated upon. A slight injury appears to be followed by very destructive results. This would show a predisposition to the disease, and has led many to suppose that the disorder is constitutional in its origin. The question has been earnestly debated whether hip-joint disease is or is not due to tuberculosis or struma. In the cases before us there does not seem to have been any marked hereditary tendency. But few of the parents were consumptive; generally the other children of the family were healthy, and in none of the cases did the child affected give any other evidence of constitutional disease. In none of the cases was syphilis known to be the direct or indirect cause. It is true that this subject is a difficult one for investigation, and that syphilis exists frequently when unsuspected, and that it is a disorder occurring often in hospital practice. Yet the history of these cases shows that for a number of years after birth the children appeared healthy, without any of the evidences of congenital syphilis, and that the fathers, mothers, and children of the same family exhibited no signs of syphilis. In my opinion, therefore, the disorder is generally, if not always, of traumatic origin, but occurs far more readily in those children who are weak and delicate, whether from some constitutional disease or not. This predisposition may be inherited, or induced by poor food, bad air, or attacks of various acute disorders, which impair the health and vitality of the child.

Various names have been applied to this chronic inflammation of the hip, which originally, at least, indicated some theory in relation to the disorder, such as strumous disease of the hip, morbus coxarius, hip-disease, coxalgia, and arthritis of the hip-joint.

The next point of importance is in reference to the *pathological changes* which take place in the structures of the joint and the surrounding tissues. In all of our cases an abscess had formed, and in each of them this abscess communicated with the interior of the joint. Generally these abscesses discharged upon the thigh; but in one case, besides opening on the thigh, the pus had travelled through the obturator foramen, and, rising up within the pelvis, had opened upon the abdomen above Poupart's ligament. In regard to the existence of an abscess entirely exterior to the joint, I have seen no positive case.

The capsular ligament was in every case ulcerated and destroyed to a greater or less extent. In parts it would be thickened by inflammatory action, and in one case (VI.) it was very much strengthened by means of cartilaginous bands, both on its inner and outer surfaces, which were firmly attached to the sides of the acetabulum. The periosteum was always much thickened, and on the neck of the femur separated to a greater or less extent from the bone. The round ligament was found in every case destroyed. The cartilages were more or less eroded over the surface of the acetabulum, and over the head of the femur they were in great part destroyed or separated from the bone. The changes which take place in the bone will be best understood by an examination of the specimens which I have brought with me. The head and neck of the femur were carious, and even the shaft of the femur was much softened, so that the saw passed through it with very little resistance. The head of the bone was greatly reduced in size by ulceration and absorption, and appeared as a mere nodule. In one case (VII.) it was entirely separated from the neck at the line of the epiphysis, and found in a distant position. The neck of the femur was generally shortened, and its under surface more diseased than the upper. The acetabulum in most of these cases exhibited less disease than the femur, yet in every one was carious in one or more localities, and in Case IV. it was perforated. The effect of the ulceration and caries is to widen and enlarge the acetabulum. This allows the diminished head of the femur to be drawn higher up, and, with the shortening of the neck of the femur, accounts for the shortening of the limb in many cases. In two of our cases (III. and V.) there was complete dislocation on the dorsum of the ilium, and in another (VII.) the head of the femur, separated by ulceration, was out of the acetabulum, and the extremity of the neck pressed against the acetabulum in its place. The greater amount of destruction shown by the femur than by the acetabulum would lead us to believe that in these cases the inflammation began first in the femur. As the disease had in each case far advanced from the primary stage, no positive opinion could be formed whether the disorder had begun in the capsular ligament, the ligamentum teres, the cartilage, or the bone.

We will next consider how we can distinguish hip-joint disease from other disorders or injuries in the same locality or possessing some of the same symptoms, and then point out under what conditions or at what stage the operation is advisable.

The *diagnosis* of hip-disease is usually very easy, and especially so in the later stages. The pain frequently felt in the knee is only apt to mislead early in the progress of the disorder, before any question of operative interference is thought of. It sometimes happens, however, that there is arthritis of the knee and of the hip at the same time. The slightest examination will, in ordinary cases, show the rigidity, the deformity, and the pain upon attempted motion at the hip. From traumatic dislocation, the evidence from the history of the case will generally leave no doubt in the mind as to the diagnosis. Congenital dislocation or malformation of the articulation has deceived at times some careful observers. As, however, the child is usually in good health, the question of excision is not likely to be considered. This disorder is comparatively rare. I have myself seen only two cases. It is first noticed usually when the child begins to walk, and the lameness is for a long time on the increase. It is not until the femur finds a secure resting-place, and the surrounding structures become accommodated to the deformity, and the disproportionate

development of the two limbs ceases, that we can hope for an arrest of the increasing lameness. There is no pain at the hip or knee; there is no rigidity, but, on the contrary, increased mobility. There is shortening, but by extension it can be at once completely overcome. The gait is peculiar, the pelvis yields to the affected side, the movements are quick, free, and without pain. If the child is placed upon a chair, it will jump upon the floor as fearlessly as a well child, and will make no effort to save the limb from the jar.

The cases which are most like to hip-disease in the later stages are those in which there is caries of the sacrum or innominate bone, with an abscess pointing in the region of the hip. I have charge at the present time of a little girl who has caries of the lower lumbar vertebræ and of the sacrum. She has had repeated abscesses, and some of these have opened on the buttock close to the hip; in others, the pus has travelled nearly to the middle of the thigh; and twice an abscess has formed and pointed on the inner side of the thigh close to the pubes. In this case there is great rigidity of the limbs, and one of them is strongly flexed and greatly abducted. In such a case as this, an examination, carefully made, of the joint by manipulation while the patient is under the influence of ether or chloroform, will show that the hip-joint remains unaffected.

In caries of the spine with a psoas abscess there is also a condition of affairs which simulates hip-disease. An inspection of the spine, combined with an examination of the hip-joint while the patient is under the influence of ether, will make plain the true location of the disease.

There is another injury which may be mistaken for hip-disease, and therefore we will allude to it, although it is extremely rare in childhood: namely, fracture of the neck of the femur. Such a case as that in our series marked VII. might be confounded with, and, indeed, was mistaken for, a fracture of the neck of the femur by the practitioner who first saw the case. The head of the bone had been separated by ulceration, and therefore the symptoms resembled somewhat those in which the neck of the bone is broken by injury. There was shortening, increased mobility, and no rigidity. But the history of the case showed that he had walked for a day after the reception of the injury; this, with the gradual formation of an abscess, the impairment of the general health, and the symptoms persisting and increasing long after what would have been the case if the bone had simply been broken by a fall, made it plain that the case was one of hip-disease.

In order rightly to estimate the true *value of excision of the hip-joint*, we should keep in mind the result of the disease if left to the best medical and surgical treatment without operation. In the early stages, almost every case can be greatly benefited or cured. In order to accomplish this, a long time will usually be required, and much care must be exercised, not only on the part of the practitioner, but also by the nurse and parent, in order to secure the fresh air, the good diet, and the proper adjustment of the different forms of apparatus employed. But, as these cases ultimately get well, no question of operation is to be considered. In the later stages, however, when an abscess has formed and the bone has become carious, from prolonged suppuration visceral disease is apt to be induced, and there is great danger of the patient dying from exhaustion. Under favorable circumstances, children even at this stage may ultimately recover, and the limb may be of good service afterwards.

We have now under observation at the Children's Hospital a child of remarkable powers of constitution, who has passed through the different stages of hip-disease, including abscesses, and yet is in a fair way to recovery, even with motion at the hip, and is now in robust health. She has, indeed, been constantly under treatment for about five years. At one time her health seemed greatly to fail: diarrhœa set in, and persisted for several weeks. It was then decided in consultation that the operation would be necessary. She was, however, attacked with measles, and after this disorder had passed away her condition again improved, the diarrhœa ceased, and the suppuration diminished. The attack of measles, on account of the reaction which followed, seemed to have been of positive benefit to her.

In these later stages of hip-joint disease those who are of good constitution and strong may recover, but the weak and those of delicate constitutions, after a long and painful illness, will be likely to die. When the health begins to fail,—and we should not wait until too much ground is lost,—it becomes a serious question to determine what we shall do to save life; and the choice lies between *excision* and *amputation*. By excision we save a limb, which the above cases show may be of great service, and the operation, therefore, is much to be preferred to amputation, if not much more dangerous to life. In our seven cases only one death occurred shortly after the operation, and only one other more than a year after excision in a child who would probably have died in a few weeks if no operation had been done.

Dr. Sayre, of New York, writes to me that he has operated fifty times, and that the percentage of death before the wound closed is about twenty-five per cent. Or if we study the large number —three hundred and seventy-six*—collected by my friend Dr. Ashhurst, we find the percentage of mortality a little less than fifty per cent. The same authority has collected eight cases of amputation for hip-disease, and of these four died. Thus, so far as any inference can be drawn from statistics in which there is such disparity in the number of cases, the death-rate is about equal. Therefore, at the present day every one gives the preference to excision, as by it, without duly increasing the risk to life, we save the limb. In some exceptional cases, when the femur is diseased to a great extent in its shaft, amputation would be advisable. I have never seen a case to which it was applicable. Again, it may be at times necessary to amputate after unsuccessful incision. This, also, I have not had occasion to do or to recommend.

* This number does not include the seven cases described in this paper.

In studying the statistics of any operation, we should know not only how many died and how many lived, but also what was the condition of the patient prior to the operation, what was the cause of death, how long after the operation it occurred, and what was the condition of the patient as regards health and usefulness of limb in those who recovered. The percentage of success or of failure is very different, according as the operation is limited to favorable or to unfavorable cases.

In each of our seven cases we believed that death would result, after a painful illness, in a longer or shorter period, if no operation was done. In several of these cases death seemed imminent, and would have probably resulted in a few weeks without the operation. The cause of death in one case was erysipelas; and death occurred on the twelfth day after the operation. In the other case the cause of death was exhaustion, after prolonged discharge from a pelvic abscess, on the four hundred and eleventh day after the operation.

The condition of the patient's health in all who recovered after the operation was improved, and the limb more or less useful. In the case of Clinton L. (I.) there was everything that could be desired: the motion was perfect, and the muscular control of the leg complete; but it was necessarily shortened, and its mobility at the hip greater than natural. In some of the others there still remain sinuses and more or less evidences of inflammation which impair the usefulness of the limb. If these subside, the limb will become of greater value than reported above.

As regards the word recovery, we should not confound recovery from the effects of the operation with recovery from the disease. In the above cases all but one recovered from the operation, but it is still undecided how many will recover from the disease. One of those who recovered from the operation afterwards died of the progressive disease.

There is another comparison which we ought to make, and that is between the *value of the limb* left after excision when the cure is complete, and that left under similar circumstances when no operation has been done. The limb after excision is perhaps a little shorter than that after the natural cure, but it has greater mobility, with equal firmness and strength, and is therefore the better. In the case mentioned above, of natural cure, the mobility of the limb promises to be good; but generally there is more or less anchylosis. In the case of a gentleman whom I lately saw in my office, who had recovered from double hip-disease, from which he suffered in his childhood, there is so much anchylosis at the hips that, although he can walk quite rapidly, his gait is very peculiar, and consists in a rotary movement of the whole body, with flexion and extension at the knees and ankles, while the motion at the hips is hardly perceptible.

After excision, where does the extremity of the femur rest? In the majority of successful cases there is reason to believe that it is drawn against the acetabulum by the rectus muscle, chiefly by means of the tendon attached to the rim of the acetabulum.

After excision, does anchylosis result? Only in a few exceptional cases. Generally there is ligamentous union with more than normal mobility, and yet with enough firmness to give a useful limb.

Should *disease of the acetabulum* be an objection to the operation? If so, each of the above cases would have been thrown out, as in all it was found necessary to remove portions from the acetabulum. But even large pieces of the pubes and ischium have been removed with success, as in the remarkable case of Mr. Erichsen.

Should the operation be done if there is extensive *visceral disease?* In such cases we cannot hope for complete recovery of the health, but we may relieve the patient from pain, and prolong life; and under such circumstances the operation may be advisable.

If *hectic fever* exists, should the operation be done? The hectic fever may be due entirely to the condition of the joint, and in such cases will disappear when the source of irritation is removed. If, however, the hectic is due to tubercle in the lungs or to other disease that cannot be removed, the excision would be useless unless to relieve from pain.

If an *abscess* exists which has never opened, should it be opened first and the operation be done some time afterwards, or should it be opened at the time of the operation? If there is no urgency from pain, then it would be better to open the abscess during the excision, and not before, as there is apt to be depression after opening of such a chronic abscess, which would be probably lessened by the removal of the cause of irritation at the same time. But if there is much pain, then the abscess should be opened, in order to give relief to the severity of the pain, without waiting until arrangements can be made for the operation. I was lately called in consultation with Dr. Newcomet to a distant part of the city, and found a lad of about fourteen suffering intensely from a large and deep abscess at the hip, due to hip-disease. It was necessary to relieve the patient at once, and I promptly opened the abscess. It would seem advisable to wait until the patient has recovered from the effects of opening the abscess before resort is had to excision. I therefore advised in this case to wait for at least ten days or two weeks, if everything went well.

What *age* is most favorable for the operation? There seems to be a great difference in favor of childhood, and statistics would indicate that the best period is that between the ages of five and ten years. My own cases were, respectively, five, five, eight, seven, eleven, eight, seven, years old. Of these, the one that died soon after the operation, from erysipelas, was seven years of age, and the one that died one year after the operation, exhausted from a pelvic abscess, was five years of age at the time of the operation.

As regards the manner of performing the operation, it seems to me best to make the incision behind the trochanter, to allow of easy drainage from the wound. It should be long enough to allow of full exposure of the portion of the femur to be removed. A simple linear incision, extending above and below the trochanter, and slightly curved at the position of the trochanter itself, answers every purpose. It should be carried down straight

to the bone through the periosteum. The periosteum should be separated from the bone, and preserved as much as possible. The closer the operator keeps to the bone, the better: he injures the surrounding tissues less, and there is far less hemorrhage. The periosteum that is retained will aid in the recovery of the bone, and may, in part, reform the portion removed. It is easier and better to raise the head of the femur and carry the saw below it, than to make the section first by keyhole- or chain-saw beneath the bone without having disarticulated or raised it. The ligamentum teres being destroyed by the disease, there is no difficulty in raising the femur from the acetabulum, or from any other position it may have assumed. Care must be taken in moving the thigh, and but little force employed, as the femur can easily be broken, and this has been done in a number of recorded cases. If this should occur, however, good union may be looked for. The section with the saw had better be made below the trochanters, as otherwise the great trochanter is apt to press upon the wound and even to protrude. If any portions of the acetabulum or pelvis are found diseased, they should be removed by the gouge or forceps. A few sutures should be used to bring the edges of the wound together, and any simple dressing may be applied. I prefer that the limb should be placed in the extended position, and that it should be kept so by a moderate extending weight attached to the limb by adhesive strips. This plan is very comfortable to the patient, and enables the surgeon to dress the wound with greater facility than by any other method. The tendency of the muscles to spasmodic contraction is prevented, and the rough sawn extremity of bone is prevented from irritating the surrounding structures.

It has often surprised me to see the freedom from pain or serious symptoms after this capital operation; and, upon a review of the whole subject, I do not hesitate to recommend it to the careful consideration of every member of this Society, as I believe that the operation has not been done as often in this city as it would have been if the benefits accruing from it had been more generally understood.

QUININE IN PERTUSSIS.

BY JOHN W. KEATING, M.D.

BELIEVING that those more fortunate members of the profession who are placed by circumstances in a position to note the action of remedies in the treatment of epidemic forms of disease should make public the results of their investigations, I beg leave to add my few drops to the great river of experience.

In the early summer months of this year, while resident physician in the children's ward of the Philadelphia Hospital, I had occasion to see an epidemic of measles and whooping-cough, which diseases occurred at the same time and ran their course together. Owing to this fact, and also that, as all know, the children are none of the strongest, the mortality was rather large,—forty per cent. I was much interested at this time in the controversy as to the possibility, by medicinal means, of cutting short an attack of whooping-cough, and I availed myself of the uncomplicated cases to test the remedies proposed.

From the first, I found quinine to be the most reliable.

The number of cases was large, and, as is usual in a hospital, the number of nurses small, so that I was obliged to abandon the idea of noting the frequency of the paroxysms in every case, and could only limit myself to the few who had their mothers constantly with them, and where the intellectual capacity of the latter enabled them to interest themselves in my experiments.

As an example, I shall narrate one case which was particularly interesting, as the disease was extremely severe, and was uncomplicated. This child was fifteen months old, had been sleeping with its mother, who was an assistant-nurse, in the room with the other children, most of whom had both whooping-cough and measles, and took whooping-cough, the attack of measles being deferred till a later period.

For twenty-four hours the mother carefully noted, by pin-holes in a card, the number of paroxysms. I then ordered one-half grain of quinine every hour during the day, the same dose to be given every two hours during the night. At the end of twenty-four hours I again had the "coughing-spells" noted. They had diminished in frequency exactly *one-half*. This experiment was often repeated, with the same results, until the end of a week, at which time the paroxysms were very few, but had not diminished in severity.

As an example of the same result in an older child, I may mention the case of a girl about fifteen years of age, who came to Philadelphia suffering from a severe attack of pertussis. The child was particularly annoyed by the severe nocturnal coughing-spells, which nothing seemed to relieve. I placed her upon the quinine-treatment, and the result was really wonderful; I may say that after the first day she coughed but little, and in less than two weeks the disease had entirely disappeared.

In order to avoid repetition, the conclusions which I arrived at are given, as follows:

1. That in most cases quinine, given in solution, will diminish the frequency of the paroxysms of whooping-cough, provided it be given in sufficiently large doses.

2. That quinine can be given to children in proportionally much larger doses than to adults, but that in very young infants it is contra-indicated, as it always causes vomiting.

3. That carbonate of ammonium will in almost all cases relieve the severity of the paroxysms, and consequently should be given in conjunction with quinine when this indication for its use exists.

4. That the dose of quinine for a child of two years should be at least ten grains daily, in divided doses: it should be watched carefully, and increased if it produces no effect. For a child of twelve years begin with fifteen grains daily, and note the effect of each dose. The drug should be frequently discontinued for a day or so, as it seems to lose its effect.

I merely offer this as the result of observation in one epidemic, for I know that the value of this treatment is acknowledged by some and denied by others.

RATTLESNAKE-BITE.

BY WILLIAM J. WILSON, M.D.,
Assistant-Surgeon U.S.A.

MR. JOHN R. MAGRUDER (son of the late Dr. Hezekiah Magruder, Washington, D.C.), now residing about twenty miles from this post, engaged in mining and smelting copper, informed me about three months since that one of his Mexican laborers had been bitten in the calf of the leg by a rattlesnake. Another Mexican went out, looked about for a few minutes, found a plant, chewed up some of its leaves, and applied the bolus to the wound, when the swelling (which had become considerable) disappeared in a short time, and the man recovered.

I requested Mr. Magruder to procure for me a specimen of this same plant, which I forwarded to Assistant-Surgeon J. J. Woodward, U.S.A., Surgeon-General's Office, Washington, and he sent it on to Professor Asa Gray, of Cambridge, who identified it as the "Acerates decumbens," or the "Anantherix decumbens of Nuttal," a plant belonging to the milk-weed family.

My *experience* of its virtues is *nil*, as I have not been fortunate enough to see a case of rattlesnake-bite for a long time; but Mr. Magruder is a gentleman whom I have known intimately for the past two and a half years, and his statement is in every way reliable. I present it through your columns to the profession for what it is worth, and because I know from repeated inquiries I have made that the Mexicans depend upon it as an unfailing remedy. I would be very glad to have it tried in such cases, and the results published in some medical journal, for the benefit of myself and other members of the profession.

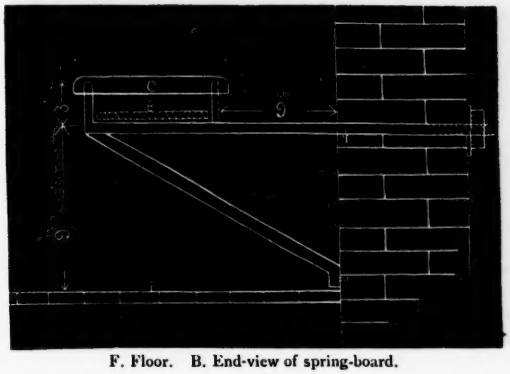
FORT BAYARD, N.M., Nov. 20, 1874.

A NURSERY SPRING-BOARD.

BY DWIGHT D. WILLARD.

THE sketch is a working one of a valuable hygienic appendage to a nursery, which I have had in use for years. Any blacksmith can easily make, of one-inch round iron, two frames, as shown, and erect them eight to ten feet apart. Placed upon the wall rather than upon the floor, they avoid the vibration and injury to the ceiling below, and also much of the noise. The noise can be still further reduced by india-rubber bearings attached to the spring-board.

This board—a plain strip of clear-stuff seasoned hickory—may be, say ten by one-half to three-fourths of an inch, giving any desired degree of elasticity. The middle of mine will barely touch the floor with my weight. It lies loose upon its supports, but projects a few inches, being kept from creeping by iron pegs in the edges, some three inches apart on each side of either upright. A wooden cap (c) resting upon the tops of these uprights wards off harm from the children. It takes up no room, as it perfectly answers for a seat or a low table; it will not break or wear out (quite an object with a plaything); it is always in order; it can be used by one or several at the same time; and it is the most popular article that ever went into a nursery. Accidents are almost impossible. The child should have something—say a wire window-screen—to grasp when it desires, and the exercise can vary from the lightest motion for a young baby, to the most violent jumping.



F. Floor. B. End-view of spring-board.

Mine is never tired of, and I largely attribute the overflowing vitality of my five youngsters to its constant exercise. It is not patented.

1714 SPRUCE STREET, PHILADA.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. JOHN NEILL, M.D.

Reported by WILLIAM ASHBRIDGE, M.D.

POPLITEAL ANEURISM—DIGITAL COMPRESSION.

J. S., white, unmarried, aged 42 years, male, was admitted into the hospital, October 28, 1874. He stated that he had always enjoyed good health, and had never been prevented by illness from working at his trade, which was that of a painter. Many years ago he contracted a syphilitic sore, which was followed by secondary manifestations. Upon admission he stated that six weeks previously, while aiding in raising a heavy ladder, he felt something give way in the popliteal space of the left leg, and upon examination, soon afterwards, found a pulsating tumor. In a short time the left foot and leg became congested, and he also had considerable pain in them, which, however, varied in intensity from time to time, and for relief from which he had taken large doses of laudanum. Three weeks after the accident, the physician who had charge of the case attempted to keep up digital compression of the femoral artery, but, as it was in the country, and skilful assistants could not be readily obtained, this treatment was only continued during twelve hours. Upon examination, it was found that the man had a popliteal aneurism upon the left side, which appears to be of about the size of a hen's egg, and of the sacculated variety. On the 31st of the month he was presented to the class, and, after discussing the relative merits of the various modes

of treatment of popliteal aneurism, the preference was given to that by digital compression, and it was determined to carry out this treatment with the assistance of some of the gentlemen of the class.

By auscultation over the heart and the origin of the great vessels, a bruit was detected which gave reason to fear that changes of an atheromatous character would probably be found in the arteries.

Digital compression was commenced at 10 P.M. on the 2d of November, and was kept up until 7 A.M. on the 5th; altogether for a period of fifty-seven hours. During the first night the patient bore the pressure pretty well, and dozed considerably when moderately under the influence of opium. The bladder was evacuated with the catheter at 12 M. on the 3d. During this day he took his food regularly, and the administration of morphia hypodermically was kept up. The foot was cold, and the collateral circulation did not seem to be well established. Pulsation was still to be distinctly felt in the aneurism, although it was not so marked as at first. During the night of the 4th and morning of the 5th signs of exhaustion became apparent, and but little opium was given. The bowels were opened freely and naturally on the morning of the 5th. When compression was discontinued at 7 A.M. on the 5th, the man was weak and restless, and suffered a good deal of pain, and for the relief of these symptoms the administration of opium was resumed. The foot was cold and livid in hue, and was surrounded with cotton, and bags of hot water were placed alongside of it. Tonics and stimulants were freely administered, and were borne; but, although food was taken in good amount, and apparently digested, the man's strength rapidly failed. On the 8th, no pulsation whatever could be detected in the tumor. On the 9th, blebs formed upon the foot, and the skin became darker and mottled. No distinct line of demarcation formed, but the redness slowly ascended the limb. On Saturday, the 14th, it was decided to amputate through the lower third of the thigh, without waiting for the formation of a distinct line of demarcation. The operation at this time was deemed advisable because the strength of the patient was rapidly failing, and, as the entire foot was gangrenous, it was feared that in the condition in which he then was he could not much longer sustain the exhausting process which was going on. The amputation was performed before the class on the 14th; oval skin-flaps followed by a circular section of the muscles being made. The cut edges of the femoral artery manifested a decided tendency to erosion, and many of the muscular branches were enlarged so that numerous ligatures were needed; venous blood issued in jets from the vein, and that vessel was also tied. But a small amount of blood was lost during the operation, and the stump was soon closed and dressed. The man reacted but slowly, and moderate doses of brandy were given him. Until Tuesday, the 17th, his condition was tolerably good, but on that day his appetite failed. On the 18th, the dressings which were applied to the stump at the time of the operation were removed. The anterior flap was found to be pale and bloodless, presenting an appearance which was not at all satisfactory, while the posterior flap looked very well. At 1 A.M. on the 19th violent hemorrhage occurred, and so much blood was lost before it was entirely controlled that death occurred at 2 P.M. on the same day. No post-mortem examination was obtained.

The aneurismal tumor, upon examination, was found to be of the size of an egg, and sacculated, and was entirely filled by a firm laminated clot. An effort was made to inject an antiseptic solution into the vessels of the portion of the leg which had been amputated, but it was found to be impossible, as they were evidently in a very abnormal condition.

TRANSLATIONS.

SPONTANEOUS COMBUSTION. — M. Chassaniol, of Brest, recently presented to the Société de Chirurgie a communication on this subject. From the report of M. Horteloup on this paper we extract the following:

After having shown that no person worthy of credence had ever been present during a spontaneous combustion, and that in consequence science possesses no authentic facts on the subject, he passes in review the various experiments and different theories which have been proposed for the explanation of this phenomenon.

The most ancient notion was that the long-continued use of alcohol might, by impregnating the tissues with this fluid to the point of saturation, provoke spontaneous combustion. But it has been demonstrated that dead bodies or portions of the same, immersed for a longer or shorter period of time in spirits of wine, burn with great difficulty. It has also been attempted without success to set fire to the expired air in animals into whose veins ether and alcohol have been injected.

Spontaneous combustion has also been explained as the result of the action of electricity. It has in addition been attributed to the presence in the human body of a gas inflaming spontaneously on the approach of a light; but precise analyses demonstrate the absence of the phosphurets of hydrogen in all parts of the economy. Of late years it has been sought to refer the occurrence of spontaneous combustion to the same causes as in the case of spontaneous inflammation of various porous bodies, such as straw, hay, flax, etc. Here, again, the comparison is impossible, since combustion is due in these cases to the influence of chemical phenomena, the conditions of which are not found in the human organism.

It is thus seen that it is impossible to form any theory which shall admit spontaneous combustion. M. Horteloup does not conclude that the idea is to be entirely rejected; he simply maintains with Tardieu that it is not theory and experiment to which appeal should be made, but rather observation.—*Bull. Gén. de Thérap.*, Nov. 15, 1874. A. V. H.

THE ANTIPYRETIC TREATMENT OF FEVER (*New York Medical Journal*, November, 1874).—Dr. Leroy M. Yale, in an able and elaborate paper, endeavors to make evident the following propositions:

1. That there is an exact regulation of the heat of the human body in health, the production corresponding to the loss, but that excessive abstraction of heat may overcome the power of production.

2. That the same laws govern the high temperature of fever, with the exception that the producing power is more speedily exhausted.

3. That the danger in acute pyrexia is due not so much to consumption of tissue and consequent exhaustion, as to tissue-changes incompatible with life, caused by the elevation of temperature, and that this danger is proportional to the height and continuity of the fever.

4. That the indication is to abstract heat and limit its production in all cases in which the temperature is so high as to make the danger from it greater than that from exhaustion.

5. That in the use of cold water we possess an agent adequate to overcome the heat-producing power.

6. That we possess certain drugs that have the power of interrupting the excessive heat-production.

7. That the statistics of the antipyretic method are exceedingly favorable, when compared with those of any other plan of treatment, for all forms of acute pyrexia, whether with reference to diminished death-rate or to mitigated suffering.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, DECEMBER 19, 1874.

EDITORIAL.

DR. ERICHSEN'S ADDRESS ON AMERICAN SURGERY.

WE have read with great pleasure the report of Dr. Erich Erichsen's address on the above subject, delivered at the University Hospital College, London. We cannot afford the space to reprint the report in full, but republish portions of it under the heading of "Notes and Queries." No doubt the address itself will interest more than would any of our comments, and, not having space for both, we postpone the latter.

LEADING ARTICLES.

"BERMUDA AS A WINTER RESORT FOR INVALIDS."

ON the approach of a season like the present it becomes the duty of many physicians to give advice to their patients (particularly those having phthisis) as to a sojourn in a more mild and equable climate.

It is not my purpose to speak of the various places which are recommended for consumptives, but to refer only to one, and that the Bermudas.

Of them I speak only because quite recently a circular or pamphlet containing an account of the Bermudas (a reprint from *Harper's Magazine* of March, 1874) was distributed to a number of physicians of this city by the agents of the "Quebec and Gulf Ports Steamship Co."

The account is charming, and one which would elevate the waning hopes of an invalid, as well as invite the tourist.

The trite old adage of "One story is good till another is told," is applicable here. A letter bearing date Bermuda, March 12, 1874, came under my observation, in which the writer alludes to the *Harper's* article, and says, "You may contradict the part on climate from my own experience," and farther on says, "Pray do, in the cause of humanity, keep consumptives at home." Having friends who have *spent two winters* in the Bermudas, I sought information, and this is the purport of the reply: "Never send a consumptive to the damp and variable climate of Bermuda." The voyage is rough, and attended with danger. There is lack of suitable food for invalids, and much of what is to be obtained is sent from here. "The climate has become colder, with fearful storms," and, though the sun be warm, the stone houses are cold and damp, with mould upon the walls, and but little convenience for fires, this being the case even in the best hotels. Extortion is practised whenever a safe opportunity presents. My informant further states, "If you had seen the sick suffer for the ordinary comforts of life, as I have, you would urge them to stay at home."

As confirming the above statements, I here give a letter which appeared in the New York *Post* in May last.

"TO THE EDITORS OF THE EVENING POST:

"The article on Bermuda in your paper of Tuesday, May 12, is so erroneous in important particulars that the writer is prompted to urge the publication of a refutation.

"Permit the travelling public to learn truth from dear experience, but do not permit consumptives, who are infinitely better off by their own firesides than in Bermuda, to be deceived. In the city of Hamilton there is one private boarding-house, accommodating five persons; of hotels, the Metropolitan, second class, where no Americans stop, and one similar to it on Front Street, kept by a colored woman.

"The choice of the invalid public is therefore the Hamilton Hotel, which is finely situated, but so wretchedly kept as to be almost beyond description. In this house the writer spent three months of the past winter. The diet was monotonously bad; the walls were mouldy from excessive dampness; and the thermometer as low at times as 45°. But four rooms in the house are adapted for fire.

"There were not two lines of steamers during the winter, and for nearly a month no tidings were received from New York. The steamer Perit broke her machinery on the December trip, after which she was laid up, and now she has broken it again. The Canina is seaworthy. The voyages of the former have seldom been less than a week in duration, while the latter, belonging to the English line, is fast.

"But the passage is stormy and dangerous at best, lying in one of the most turbulent latitudes of the ocean. Well have the 'still vexed Bermoothes' maintained their reputation since Shakspeare's day. The climate is too variable for pulmonary disease, and a weather-record kept by an invalid this year showed the following result:

in the month of January, twenty-one days of rain; in February, fourteen days; and in March, twelve days, with gales of fearful weather, and a hail-storm about the 10th which penetrated the roofs of the soldiers' huts at Prospect.

"Bermuda has been written up extensively of late by those interested in its advance, but, in the cause of humanity, do not allow the dying to go there ignorantly to shiver and starve.

"The statements with regard to the army and navy are entirely over-estimated. There are two regiments of one thousand men each, and a small corps of engineers, while of men-of-war not more than six have visited those waters in many months.

"Bermuda's prosperity passed away long ago, but was galvanized into transient life by the blockade, when she made money at our expense. The climate alone will prevent her becoming a resort for invalids, however much the proprietors of the steamships may desire it. E."

With such pictures as these (and a personal knowledge of the writers of these letters enables me to vouch for their truth), we certainly cannot recommend to our patients such a place for the winter. One of the writers suggests Nassau, Cuba, and Santa Cruz as fitter places.

A. C. W. BEECHER, M.D.

CORRESPONDENCE.

MILK-SICKNESS.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—We are having this fall a regular epidemic of what is generally called milk-sickness or trembles. I have treated upwards of thirty cases.

In the subacute form, the individual is languid, and unable to make any exertion of body or mind; the appetite is variable, the bowels rather torpid, palpitation of the heart and slight stiffness of limbs are complained of, general tremblings are present, and if any considerable exertion be made, or if the taking of food be left beyond the usual time, nausea is felt.

In the acute form, the individual is suddenly seized with extreme nausea, prolonged vomiting, faintness, and prostration. The temperature of the body and extremities falls below the natural standard, but not more than one to two degrees.

The skin grows cold and clammy; great distress and anxiety are depicted on the countenance; the breath acquires a peculiar odor, as does also the whole body; the tongue is generally natural, moist, and clean, although the bowels become obstinately constipated. A complete loss of function in the stomach comes on, with incessant emesis. At every effort of vomiting, a fluid is ejected, of variable appearance: it is sometimes colorless, at other times like indigo-green, and sometimes like coffee-grounds.

As the disease advances, sharp pains in the limbs and neck are experienced, as well as acute gastric pains, accompanied by a peculiar and intense sense of heat in the mouth. The patient is continually calling loudly for water or ice. The pulse is more frequent than at first. At the beginning of the disease it is generally about forty to fifty; after four or five days it rises to sixty or eighty, or even beyond this.

The nature and cause of the affection are not known. The poison is in the milk and butter, as I have treated cases where persons in the country had the disease, and the persons in the town who used the butter made in the affected dairies were also attacked.

The treatment here generally employed is simple: calomel, and ice in the mouth, with whisky freely administered as the main portion of the treatment. Blistering is not used as it formerly was, which is also true of opium. Of my thirty cases, all are now well; one patient had the disease five times,—once a month.

C. H. SMITH.

KENTON, OHIO, Nov. 20, 1874.

POISONING BY ODONTOCROLL.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—Allow me to offer to your notice a case of peculiar interest in my practice. My only apology for so doing is to inquire if there are parallel cases on record, and, if so, the principal points of their treatment. It is interesting to the profession, for the reason that the compound afterwards mentioned is in use among our dental brethren, and any practitioner may be called suddenly to a similar case, and be at a loss how to act, as I was.

I was hastily summoned, on Monday evening, the 19th ult., to administer electricity to a man, supposed by the messenger to be dying, who had been carried to a physician's house. The patient, Mr. W., is a chemist, and, during the practice of his profession, has discovered a combination of hydro-carbons which had been found by himself and a dentist of eminence to be a very successful remedy for odontalgia. The compound, called "odontocroll," or "carvocroll," is a heavy, oily liquid, of smoky odor and taste, and has been introduced in the dental market as a local anæsthetic for toothache. Mr. W., the dentist, and a friend met in the chemist's laboratory, in this city, and further tested the drug by placing a few drops upon smoking-tobacco and inhaling the vapor. Mr. W. placed ten drops in his pipe, and, having smoked in the usual manner for a few minutes, poured ten more drops in it. After puffing a few times, he suddenly dropped, insensible, upon the floor, but in a few seconds revived entirely, and insisted upon resuming his smoke. To this his friends objected, and, during the discussion following the refusal, he again became insensible. They then removed him about two blocks, to Dr. D.'s office, and on the way thither he fell to the sidewalk, "collapsed," two or three times. This happened at nine P.M. I reached him at ten, and while I was listening to his story he fell upon the floor again, unconscious.

This had happened several times since he had reached the office. Upon examining him during his fall, I found the countenance somewhat dusky, the pulse normal in force and frequency, all the voluntary muscles relaxed except the abdominal, and the pupils responding quickly to light. I endeavored to arouse the breathing, which was completely suspended, by placing one pole of the battery over the right phrenic nerve, and the other over the stomach, using the current from one cell, interrupted and secondary. This I repeated during two successive attacks; but the electricity did not seem to quicken the return to consciousness or respiration. The only appreciable effect was to make him complain of great weakness as soon as he could speak, and, fearing the too prolonged influence of the battery, I suspended its use. The suggestion was made that another physician should be summoned, and an old experienced practitioner was called in at eleven. He advised the administration of brandy, of which about half an ounce was given. The attacks gradually became less frequent, and, after some time, gave premonitions of their approach by grimaces and bodily contortions, which were invariably followed by the insensibility. At half-past twelve we called to our aid two policemen, and removed him to his home, about three blocks distant. He struggled hard all the way, evidently from the effect of the brandy, but as soon as he was placed in bed became quiet, and had no more attacks during the night. In the morning he reported himself as feeling as well as usual, though somewhat weak and sore from his falls and struggles on the way home.

The unconscious state lasted usually from twenty to thirty seconds, came on suddenly, and passed off as quickly as it came on. During this time respiration was entirely suspended, and all sensibility lost. The conjunctiva and dorsum of the tongue were repeatedly touched without producing any reflex muscular action, and his appearance was that of a person in a state of complete anæsthesia. While conscious, he acted as usual in perfect health, nor was he himself aware, by any premonitions, of an impending seizure. Nothing was given him but some aromatic spirits of ammonia and the brandy mentioned.

Will you be kind enough to offer me such suggestions as to the cause or treatment of the case as your valuable time or space will permit?* P.

Bridgeport, Conn., November 19, 1874.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

CONVERSATIONAL meeting, November 18, 1874. President, Dr. Washington L. Atlee, in the chair.

Dr. H. Lenox Hodge read a paper on Excision of the Hip-Joint in Chronic Arthritis or Hip-Disease, with analysis of seven cases of the operation.

Dr. J. C. Morris asked whether he had observed an excess of phosphates in the urine.

Dr. Hodge said he had not. His attention was particularly called to the urates, as the digestion is not good. The urine is generally clear.

Dr. L. K. Baldwin asked whether any trace of syphilis was observed in connection with the cases.

Dr. Hodge said he had no proof of syphilis in connection with any of the cases.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Vice-President, Dr. H. Lenox Hodge, in the chair.

Thursday Evening, Oct. 22, 1874.

TUBERCULOSIS of the kidney—Peculiar "worm-like" bodies from the urine of the same case.

Dr. R. M. Bertolet presented the specimens for Dr. Thomas B. Reed, who gave the following history:

"The pathological specimens just shown are from a patient of mine, A. B., aged 35, of American parentage, who came under my professional care some ten days ago, with an acute attack of nephritis. Always of comparatively robust health (father still living at sixty, mother died of some acute fever, one sister of acute tuberculosis of the lungs at an early age), having served throughout the war, he came first under my notice professionally in 1869, and was treated for several months for 'stricture of urethra' (the result of gonorrhœa contracted in 1864, in the army) by gradual dilatation, from the finest 'catgut' to a No. 19 bougie. Every four to six months since (1869 to 1874), I have passed a bougie, and I repeated the operation some six weeks before his death. He was a man in mercantile life, whose business required him to travel a great deal; of correct and temperate habits, and, so far as I know, never sick until his last illness.

"When called to see him, October 9, he was suffering from fever of a malarial type, from a severe cold which he had neglected, and from wandering neuralgic pains over the chest and abdomen, and severe local pain over the kidneys. He was promptly treated by a mercurial cathartic, active local counter-irritation, dry cups, etc., over the lumbar region, full doses of quinine, and moderate diuretics, and for thirty hours he seemed decidedly improved. The urine was highly albuminous, sp. grav. 1130, but there was no apparent deposit until the 12th. On this day was observed an acute pleurisy developed posteriorly over both lower lobes of the lungs, more decided on the left side, and large effusion into the chest, which was greater on the right, with consequent oppressed breathing, and the tough, viscid expectoration specially characteristic of this complication. Simultaneously were noted a *peculiar blanching of the face* and a *failure of the circulation*, indicative of *hemorrhage*, and *most alarming*. This was late on the evening of the 12th. On examining his urinal on the morning of the 13th, very large quantities of cylindrical worm-like bodies, about one to two lines in diameter and from two and a half to three and a half inches in length, were discovered in the peculiar, smoky, dusky-red urine, which showed to the eye (as was soon confirmed by the microscope) positive and extensive hemorrhage from the urinary organs. He continued to pass these bodies in greater or less quantity during the remaining forty-eight hours of life. No treatment was of the slightest avail. He was freely stimulated with tonics and astringents, active diuretics and diluents, thorough counter-irritation, cups, etc. He died of exhaustion (loss of blood and compression of lungs) on the evening of the 15th. His mental condition was clear till within a few moments of

* The editor of the *Times* knows nothing about the action of odontocroll, and whilst exceedingly interested in the account of the poisoning, whose symptoms were very strange, is unable to throw any light upon the matter. Can any of our subscribers do better?

his death. Relief by the aspirator would have been tried had there been the slightest probability of averting the result.

"The post-mortem examination was made twenty-four hours after death, and was confined to the thoracic and abdominal organs. There were large effusions into the pleural cavities, with pleuritic exudations over lower lobes of both lungs, greater over the left. No evidence of tubercle in lungs. Liver apparently healthy; dark blood escaped from portal veins upon section. Mesenteric glands not enlarged. The bladder was contracted and empty; its mucous membrane and that of the right and lower half of left ureter presented no pathological lesions.

"*Left kidney* moderately enlarged, of doughy consistence; its cortex smooth, yellowish-white in color, with clearly developed *stellulæ Verheynii* and injection of the Malpighian bodies,—the latter seen as red dots; nearly all of the medullary papillæ intensely congested, purplish in hue. Pelvis and ureter healthy. The thin capsule easily separated, and was covered with a stout layer of adipose tissue.

"*Right kidney* somewhat larger and more congested, with the same alterations of the parenchymatous structure as noted in the opposite organ. But in addition there are seen disseminated at numerous points both in the cortical and medullary substances, also in the capsule itself, small round tubercular nodules of variable size and color. None of these tubercles have attained a size greater than that of a small shot, the larger ones having an opaque, yellowish aspect, while the smaller are gray and transparent.

"The mucous lining of the pelvis is thickly strewn with granules, many of which have softened into continuous cheesy patches, forming large, irregularly-shaped ulcerations. The underlying connective tissue is greatly hypertrophied. There is extensive loss of substance of several of the central papillæ, the tubercular infiltration and ulceration extending upwards into the cortex.

"The upper half of the left ureter is apparently filled with a clot half an inch thick. The mucous membrane of this portion of the tube is studded with minute gray tubercles. A more careful examination clearly shows that the clot has been formed not within the lumen of the tube, but by extravasations between the mucous membrane and the outer coats of the ureter.

"Microscopically, both kidneys presented fatty degeneration of the renal epithelium, with slight hyperplasia of the interstitial connective tissue. The presence of giant multinuclear cells and lymphadenoid structure in the gray granules of the left kidney confirms the diagnosis of true miliary tubercle.

"The softened cheesy foci (probably embolic) situated in the cortex, although only of the size of a bullet, evidently proved the source for the local infection, since the bladder and genito-urinary organs were not, as is usually the case in renal phthisis, involved in this instance.

Remarks.—"The right kidney clearly showed erosion of some of the vessels of the kidney, with subsequent hemorrhage and rupture of wall and the pouring out and infiltration of the fatty and cellular tissue surrounding the pelvis of the kidney and ureter, forming a large, irregular mass which at first sight suggested the idea of malignant disease of the organ. When the kidney was lifted from its bed, a large mass of coagulated blood was found lying in the retro-peritoneal region, amounting to several handfuls. Here, then, was the cause of the blanched face and failing circulation. From the eroded arteries and ruptured wall of the kidney his life-blood had slowly and silently ebbed away.

"Some of the questions involved in the treatment and subsequent post-mortem examination of this case are of interest.

"The hemorrhage and its cause are of special moment.

"(1) Malignant disease (cancer) or traumatic injuries are the chief sources of hemorrhage from the kidneys. During life, and, indeed, until the determination of the question by the microscope, I was of the opinion that malignant disease (cancer) had suddenly been developed in this case. Tubercle in other organs—the lungs, for example—is not, *as a rule*, attended with hemorrhage, but, as in gangrene, seals up the vessels as it advances; and in looking up the authorities on the subject I do not find any mention made of hemorrhage as an element in any discussion of the subject of tuberculosis of the kidney.

"(2) The presence of the cylindrical worm-like bodies, which were probably composed wholly of blood-corpuscles and fibrin, and the probable manner of their formation. There were three possible modes thought of. Aitken and Vogel state that 'they have been seen, and are possibly formed by the passage of blood through the urethra.' This, if it was passed slowly and through a stricture, might be a satisfactory explanation; but in this case no stricture existed, as a No. 19 bougie had been passed within a few weeks of death, and the passage of these bodies in great numbers at each act of micturition shows conclusively that they were formed before reaching the bladder.

"Niemeyer, another author who mentions the subject, says 'that they are sometimes formed in the *ureters*,' but fails to state under what circumstances.

"In the case before us this seems to me the most intelligent way to account for their formation. As stated in the post-mortem account, the hemorrhage which was poured out into the fatty and cellular tissue in and around the pelvis and the origin of the ureter *coagulated and formed a semi-solid mass encircling the ureter and very greatly contracting its calibre*, so that while surrounded by this mass *only a small-sized probe could be passed*. The blood poured out in the pelvis of the kidney made its way with difficulty and drop by drop through the stricture, and coagulated in the ureter below this point.

"The third theory to account for their formation is in the straight or collecting tubules of the kidney. The masses seem to me too large to be accounted for in this way; and yet the microscopic appearances of some of the specimens of Dr. Bertolet show what seem to be the branching tubules coming off from the straight tubules.

"To his very able assistance in the post-mortem and microscopical investigation of this case, as well as in the discussion of the various theories and authorities on the subject, very much of the interest of the case is due."

Examination of urine and worm-like bodies by Dr. Bertolet.—"The urine had a specific gravity of 1030, an acid reaction, highly albuminous, contained granular and blood casts, free blood-corpuscles, besides the numerous worm-like bodies seen floating in the reddish-brown-colored fluid. These worm-like bodies are more or less tortuous in outline and dark red in appearance. Their average length is two inches, width one line and under. Very many of them end in a thin filamentous appendage, so tenuous as to be scarcely visible to the naked eye. A few of these terminal extremities, when examined microscopically, present a dichotomous appearance. These lateral branches are not due to any accidental folding, but seem to be in actual continuity with the main trunk.

"Microscopically, these casts are made up of coagulated fibrin and blood-corpuscles. Renal epithelium is seen adherent at points along the minuter filaments only. The question at once arises, At what point were these remarkable casts formed? While the wider portions of them were unquestionably moulded in the constricted part of the ureter, the terminal parts are most probably casts of dilated straight tubules.

"The adherent renal epithelium, the branched appear-

ance, and the fact that sections of the medullary cones still reveal the presence of blood-casts in some of the tubules, while others are seen empty and deprived of their epithelium, lead me to regard the tail-like end attached to some of these worm-like bodies as being formed in the uriniferous tubules. That they should have been washed from thence and become adherent to the masses, plugging the ureter, seems to me no more improbable than that the clots should have been expelled from the latter site. Beale and other authorities state the diameters of the largest tube-casts to be from one five-hundredth to one two-hundred-and-fiftieth of an inch. Yet, upon considering the unusual and enormous pressure to which the uriniferous tubules of this kidney must have been undoubtedly subjected by the blood damming up into them, I believe that the finer portions at least of these worm-like bodies were formed in the straight tubules, and not in the ureter."

Dr. H. LENOX HODGE inquired how soon the patient died after the passage of the worm-like bodies.

Dr. REED replied that they were passed on Tuesday morning, and the patient died on Thursday.

Dr. HODGE inquired whether there was hemorrhage into any other organ.

Dr. REED thought the death of the man was owing to a large hemorrhage about the kidney, behind the peritoneum, in connection with the acute pleurisy with which he was suffering. There was no hemorrhage in any other organ.

Dr. J. G. RICHARDSON observed that to his eye the so-called "branch" of the cast shown by Dr. Bertolet presented the appearance of being a narrow strip of the main stem, split or torn off the side for a short distance, instead of showing the characters of a smaller cast from the lumen of some tributary tubule emptying into the larger stricture.

He further remarked that he had never seen a tube-cast larger in diameter than the one three-hundredth of an inch, and that the largest recorded by Beale was the one two-hundred-and-fiftieth of an inch; whereas the bodies presented by Dr. Bertolet were, when fresh, as thick as the one-sixth of an inch. He also thought that so large a dilatation of the uriniferous tubules as would be necessary for the formation of these bodies would be visible after death. Dr. R. suggested that the bodies might be formed in the ureter, whose walls are often in contact, and that the tapering form of the body might be owing to the fact that the farther from the immediate seat of hemorrhage the less would be the force of the blood and the smaller its quantity, so that a clot would gradually become narrower in its diameter as its extremity was reached.

Dr. MORRIS LONGSTRETH inquired whether blood was observed in the uriniferous tubules under the microscope.

Dr. BERTOLET replied that numerous sections had been made, and in some of the tubules blood-cylinders were still found.

Dr. RICHARDSON thought that blood extravasated into the pelvis of the kidney might force its way into the tubules.

The specimens were referred to the Committee on Morbid Growths, for further examination and report.

Two cases of intestinal perforation, the sequelæ of typhoid fever.

Dr. F. P. HENRY presented the specimens,—perforation of the ileum consequent upon ulceration of Peyer's patches. Both of the subjects furnishing these specimens were walking cases of typhoid fever. The *first* case, from which the specimen in alcohol was obtained, was admitted to the Episcopal Hospital on the 9th of May, and died on the 5th of June. For the first four days after admission he remained in bed, but during the greater part of his stay of nearly a month in the hospital he was up the most of each day. He was easily fatigued, however, and subject to headache and dizziness. This latter symptom, dizziness, was his chief complaint, and, taken in connection with his slow pulse, anorexia, and frequent headache, was calculated to draw attention to the brain as the seat of disease. This dizziness was so great as to cause him to adopt a peculiar gait to steady himself. Dr. H. noticed him one day walking with his legs very wide apart, and on questioning him found that it was to prevent himself from falling. His temperature was found so near normal that no record of it was preserved until June 1, when the doctor observed it recorded as 101°; this being the evening temperature.

On June 2, the morning temperature was 99°, and the evening, 100½°.

On June 3, morning, 98¾°; evening, 100°.

June 4.—Morning, 99½°; evening, 104½°. It was at this time that symptoms of peritonitis showed themselves. There was enormous tympanitic distention and great tenderness of the abdomen, with a pulse of 140. The pulse was taken again during the night, and found to be 105½°.

The man died before morning, in a state of collapse, the result of shock. At the post-mortem, a few hours after death, there was found a small quantity of watery fæces in the abdomen, and a few patches of opacity, with increased vascularity, upon the peritoneum covering the small intestines. The ileum was thickly covered with ulcerated Peyer's patches, and after careful search a small perforation was discovered at the bottom of one of these ulcerations, a few inches above the ileo-cæcal valve.

This patient was kept upon liquid diet, as a strong suspicion of typhoid fever existed, and the ulceration cannot, therefore, be considered due to a traumatic cause.

The *second* case was admitted to the Episcopal Hospital on the 12th of October, 1874. He had been ill for five weeks previous, but had not been confined to bed. His symptoms were headache and fever, always worse towards evening; pain in the right iliac region, and diarrhœa, amounting to from fifteen to twenty stools in the twenty-four hours. Six days before admission to the hospital, he was suddenly seized with nausea and vomiting, the diarrhœa continuing, with pain accompanying each passage.

On admission, there was excessive tenderness over the whole abdomen, great rigidity of the abdominal muscles, particularly the recti, and vomiting at frequent intervals of a small quantity of pale-green fluid, apparently mucus, tinged with bile.

Dr. H. first saw the patient on the 13th, the morning after his admission, and found the above-mentioned symptoms. The decubitus was dorsal, with the thighs and legs flexed. The pupils were moderately contracted; respirations eighteen per minute and very shallow; pulse 160, weak and thready; skin cool and moist.

The treatment followed by Dr. Steele, the resident physician, had consisted of a grain of opium, in pill, every three hours, with a hypodermic injection of one-quarter of a grain of morphia every six hours, with nutritious enemata.

Dr. H. administered one-quarter of a grain of morphia hypodermically, and on leaving the hospital found the respirations sixteen per minute, and the pulse still 160.

At 1 P.M. there was no pulse at the wrist, the respirations were fourteen per minute, and the pupils decidedly contracted. Died at 9 P.M.

The opium administered did not produce sleep or stupor, but served to mitigate the severity of the pain.

At the autopsy, eleven hours after death, the intestines were found matted together in one mass by, and bathed in, about two quarts of very offensive pus. Mesenteric

glands enlarged but not softened. Several ulcerated Peyer's patches were observed, but the ulceration was by no means so extensive as in the preceding case. At the bottom of one of these patches were found two rather large perforations, and a third at the bottom of a second ulcer. In these ulcerations the whole of the glandular structure has sloughed away, leaving a clean-cut ulcer, showing a late stage of the disease. The intestines are covered with a thick layer of lymph.

The notes and observations in connection with these cases were by Drs. Steele and Reid.

Fluid removed from a cyst of the broad ligament.

Dr. H. LENOX HODGE presented the specimen, from a woman 52 years of age, who had suffered from the swelling for four years. On October 9, Dr. H. tapped her, and removed ten quarts of this colorless, transparent, thin fluid. It is slightly opalescent, and looks like pure spring-water. Its specific gravity is 1004, and it does not coagulate on boiling. Upon standing it has become less clear than at first, and a thin pedicle has formed upon its surface. Under the microscope, Dr. Richardson reports that the field is free from objects.

There is a property which Dr. H. thought this thin fluid possessed, and to this he wished to direct the attention of members of the Society, namely, *its power of transmitting sound.* Upon auscultating the abdomen of this patient, the gurgling of the intestines could be distinctly heard in front where the sound on percussion was dull. In other cystic dropsies of the abdomen he had not noticed this symptom. It may possibly prove of value in detecting the existence of cysts of the broad ligament and in distinguishing them from other collections of fluid. Their diagnosis prior to tapping is somewhat difficult, and anything that will aid in recognizing them is of value.

REVIEWS AND BOOK NOTICES.

INFANT DIET. By A. JACOBI, M.D. Revised, enlarged, and adapted to popular use, by MARY PUTNAM JACOBI, M.D. G. P. Putnam's Sons, N.Y.

The peculiar combination of authorship in this little work gives one an exceptional interest in its perusal. Surely, if ever woman falls as a practitioner into her appropriate place, it will be as a director of infant management and an adviser of the mothers of our race.

A proper diet for infants deprived of the breast would save, in our large cities, more lives than an infallible specific for pulmonary consumption. While the world is filled with so-called infant foods, from that of the great Liebig to that of the small apothecary who seeks fame and fortune at the infant's mouth, the recipients, with singular unanimity, condemn them all in unmistakable pantomime, too often ending in tragedy, the baby actor falling at last before the well-directed blows of even the most highly respectable articles. Yet how seductive the allurements! how voluminous the catalogue! how highly recommended each unfailing substitute for that fountain which seems destined never to admit a rival! Ingenuity has given us not only the names, but, with a gush of generosity, the articles known as farina, maizena, cerelina, papoma, nutrina, prepared wheat, barley, malt, oatmeal, corn starch, and so on to the end of the catalogue. Yet, in the very midst of this gushing plenty, the summer months sweep away their victims, and the rest of the year gleans the plenteous fields.

Though advocating the claims of no new aspiring food, this book aims rather at a sensible use of what means we have, and will prove suggestive to many practitioners, and one that can be recommended to intelligent mothers. We do not intend in our brief notice to discuss the propriety or value of all its recommendations, but only say, Find us a work of the size and kind better, or as good.

With as little technicality as is consistent with an honest treatment of the subject, the language never descends to that mock simplicity which is the bane of so many works "adapted to popular use." We are sure that if popular medical works must be written, the true principle in their composition is that set forth by the authors of this one in their preface,—that science will not bear too much dilution, and that even non-professional readers, even the mothers who may read this book, have some brains, as a rule, and resent being addressed, as they so often are, in what may be called medical baby-talk. E. W. W.

CLINICAL LECTURES ON VARIOUS IMPORTANT DISEASES. BEING A COLLECTION OF THE CLINICAL LECTURES DELIVERED IN THE WARDS OF MERCY HOSPITAL, CHICAGO. By NATHAN S. DAVIS, A.M., M.D., Professor of Principles and Practice of Medicine and Clinical Medicine in Chicago Medical College. Edited by FRANK H. DAVIS, M.D. Second Edition. Philadelphia, Henry C. Lea, 1874. Pp. 283.

This effort to instruct the profession from the numerous cases of disease treated in Mercy Hospital is certainly a meritorious one, and the records so carefully compiled by the younger Dr. Davis doubtless contain many observations which, if they had been published in the year of our Lord 1800, would have possessed great value.

During the current century, however, sundry wonderful discoveries in the branches of pathology, diagnosis, and therapeutics have been made, so that at the present day scientific physicians, even of "the younger class" (for which, the preface tells us, this book was especially designed), are apt, at least in this longitude, to demand that recent medical works should enable them to learn something not fully set forth in the pages of Sydenham and Cullen.

Our space is too limited to permit us to point out to the Doctors Davis, for their own benefit as well as that of their *students* and *patients*, many of the improvements in the healing art of which they appear to be practically ignorant. As an aid to diagnosis and prognosis, we would, however, recommend to their notice an ingenious instrument called the clinical thermometer, whose precise indications of temperature far exceed in value those expressed by the inexact phrases "skin cool" (p. 167), "skin dry but not hot" (p. 29), "skin dry and warmer than natural" (p. 27), etc., etc. Conscience forbids us to conceal any longer from Prof. Davis that a modified form of the antique magnifying-glass (with which he is doubtless familiar) might, by revealing those remarkable microscopic cylinders denominated tube-casts, add much to the certainty of his diagnosis of Bright's disease, for which he now ("1874") seems to depend solely on the history, the general symptoms, and the presence of albumen in the scanty urine (p. 171). We further feel it a duty to inform our authors that a certain Prof. Niemeyer has pointed out some broad distinctions between tuberculosis and phthisis, which throw important light upon the diagnosis and treatment of these affections. And lastly, we beg leave, out of pity to the poor sufferers from neuralgia now lying in Mercy (?) Hospital, to suggest that the "temporary relief" should sometimes be afforded them *at once*, by that precious boon to humanity, the hypodermic syringe, instead of forcing them to wait hours for a partial mitigation of their agony by the ancient, tardy, and inefficient methods of using "anodyne liniments" (p. 190), or calomel and opium (p. 205). R.

GLEANINGS FROM OUR EXCHANGES.

PYÆMIA (*The Lancet*, November 14, 1874).—Dr. W. Moxon believes that, after a survey of the indications of its morbid anatomy, he must regard pyæmia as made up of blood-disease and local inflammations. We can trace several ways in which the blood-disease and local inflammations are related to each other.

First. The general disease may greatly predominate, so that the blood becomes unviable, and death occurs with signs of blood-poisoning, revealed during life in the form of high fever and rapid fatal exhaustion, and after death by softening of the great viscera and extravasations of blood and ecchymoses within the tissues, no local suppurations being found.

Also, here we must remember that some cases of pvæmia of a most characteristic kind are found without any kind of sore whatever; we should not say this so strongly unless we had, in several instances, searched with the utmost care through all parts of the body and found no primary disease.

Secondly. In another kind of pyæmia the wound or sore produces a morbid matter, which is absorbed, and so poisons the blood. It is probable that the pyrexia of surgical fever is principally caused by the absorption of the products of the wound; so that this kind of pyæmia is allied to common surgical fever. The prevention of putrefactive changes in the discharges of the wounds averts the danger of pyæmia from this cause; and the success of the antiseptic method shows sufficiently the importance of this source of blood-poisoning. It creates, however, only one kind of pyæmia, characterized by its appearing later, and running a more chronic course, with secondary suppurations.

It is believed by some that there is a pyæmic *contagium*, which acts first upon the wound, and enters the system there; but further observations are required to substantiate this hypothesis.

Thirdly. In some cases that go by the general name pyæmia, the whole affection is confined to the formation of purulent thrombi in the veins, and the conveyance of these to the lungs as emboli, where they set up secondary suppurations. Such a process is too simple and clear to need further remark.

These views may be thus summed up: Simple embolism, or purulent absorption, or general fever due to contagion, severally form distinct varieties of what is called pyæmia; but in many cases, perhaps the majority, all these conditions exist together.

PHOSPHORUS AS A STIMULANT (*The Lancet*, October 31, 1874).—Dr. John Brunton records the two following cases of the use of phosphorus as a stimulant:

A woman, aged 47, was in the twelfth day of typhus fever. Her depression was very great. She lay in bed cold, nearly pulseless, semi-unconscious, and with difficulty aroused, quite unable to move in bed; in short, she appeared moribund. One-twelfth of a grain of phosphorus was administered every two hours, with marvellous effect. The revivifying power was very marked, by return of heat, pulse, consciousness, and general power. Next day she had the turn, and has recovered admirably.

A man, aged 40, suffered from diarrhæa, which was very prevalent. In a day or two he had the appearance of having something more than mere diarrhœa. He became too ill to get out, and took to his bed. On examination, the characteristic rose-colored spots of typhoid fever were found, and he had all the other symptoms present. His fever continued gradually to increase; his conjunctivæ were injected, his breath cold, his skin cold and clammy; pulse 48, very weak and compressible; voice whispering; temperature 96.4°. He was in a condition of extreme depression. Phosphorus was at once administered in doses of one-twelfth of a grain every two hours, and eighteen hours after, when he had taken three-quarters of a grain of the drug, he had quite revived. His skin was comfortably warm, eyes not so suffused, voice more natural; pulse 72; temperature 99°. The phosphorus was immediately stopped, and nitric acid was given. Since that he has gone on prosperously, and is now convalescent.

The formulæ used was—

℞ Ether. tinct. phos. (gr. ½ to ʒi), ʒiii;
Spt. vin. rect., ʒss;
Glycerin. anhydr., ad ʒiss.

One teaspoonful as a dose.

SYMPHYSEOTOMY (*The Boston Medical and Surgical Journal*, November 26, 1874).—Dr. Piccinini, after a review of the operation of symphyseotomy, lays down the following rules:

1. Never perform symphyseotomy when the pelvis is contracted to less than three or three and one-half inches (80 to 95 millimetres).
2. Operate by the subcutaneous method.
3. After section of the cartilage, apply the forceps.
4. The position of the patient, on her back with a hard cushion beneath the pelvis, previous catheterization, and an immovable bandage are details of great importance to the success of the operation.

During five years there have been nineteen operations at the hospital at Naples, in fifteen of which the women were saved, and in sixteen the children.

NOTES AND QUERIES.

EXTRACTS FROM DR. ERICHSEN'S ADDRESS ON AMERICAN SURGERY.

"And first, as to the Profession, I may at once say that it appears to me to occupy in America, relatively to the rest of the community, a far higher social status than it does in this country. The reason for this seems tolerably obvious. In the absence of an exalted hierarchy in an established church and of great dignitaries of the law, these professions do not offer sufficient inducement for men of the highest intellectual calibre to enter them. Medicine therefore stands prominent as probably the best-educated, certainly the most scientific, and consequently, in a country where education is so widely diffused and so much regarded, the most respected, of the professions. And in the absence of all titled classes, it can socially more than hold its own in competition with the trading and financial elements which are such prominent constituents of the society of most of the American cities. Perhaps, also, the high position that medicine occupies is owing, in some respect, to the greater uniformity of practice that prevails among medical men in America than with us. For, just as in the Law there is no division into barristers and solicitors, so in Medicine there is none into physicians, surgeons, and general practitioners. Special aptitude, inclination, or opportunity will necessarily lead men to a greater eminence in particular departments of the profession. But the subdivision into classes and specialties, which is so prevalent here, is unknown in the United States.

"Surgery in the United States certainly stands at a very high level of excellence. The hospital surgeons throughout the country have struck me as being alike practical, progressive, and learned in a very high degree. In practical skill, and aptitude for mechanical appliances of all kinds, they are certainly excelled by no class of practitioners in any country. They are thoroughly up to modern surgery in its most progressive forms, and I have never met with any class of men who are so well read and so perfectly acquainted with all that is done in their profession outside their own country. It would be a great injustice to American surgeons for it to be supposed that surgical skill is confined to the large cities or to the few. On the contrary, I know no country in which, so far as it is possible to judge from contemporary medical literature, there is so widely diffused a high standard of operative skill as in the country districts and more remote provinces of the United States. The bent of the mind of the American surgeon is, like ours, practical rather than scientific; in fact, there are the same mental characteristics displayed in him that we find here,—the same

self-reliance, the same practical aptitude, the same *curative* instinct, which leads him to consider his patient rather as a human being to be rescued from the effects of disease or injury than as a scientific object to be studied for the advance of professional knowledge.

"One of the great advantages—and it is a very great one—that an English writer enjoys is that he addresses eighty millions of people, and that his works are not only disseminated throughout his own country, but, if of any value or importance, are eagerly sought after by that still larger body of readers existing in the 'Greater Britain' which now encircles the globe. And if it be true, as has been said, that the judgment of enlightened foreign contemporaries is an anticipation of that which posterity will give, he may possibly have a foreshadowing of the verdict that a future generation of his own countrymen will pass upon him, in the estimate in which he is now held among those who inhabit the regions beyond the Atlantic.

"Surgical practice in America does not differ in any very essential respects from that adopted here. There are necessarily some modifications, and many ingenious appliances; but essentially there is no greater difference between American and English surgery generally than is to be found between the practice adopted in any two London hospitals.

"The treatment of wounds is sufficiently simple, and presents nothing peculiar. I observe that American surgeons are careful about the drainage of wounds, and employ drainage tubes or similar appliances freely.

"'Antiseptics' do not appear to be much, if at all, employed; at least, in a methodical form. Carbolic acid in the form of lotion or wash is commonly used. Indeed, antiseptics are not so much needed in the American hospitals as in ours. The object of antiseptics is to prevent the contamination of a wound by septic impurities from without. These sources of contamination do not exist in such hospitals as those that I have been describing to the same extent that they do in less perfectly constructed and less hygienically conducted establishments, and hence antiseptics are proportionately less needed. In America it is attempted to accomplish by improved construction of hospitals, and by close attention to hygienic requirements, those great results which we are here driven to attain by 'antiseptic' methods of treatment. In consequence of the ignorance in all matters that relate to the hygiene of hospitals that prevails among the architects and managers of these institutions, an undue burden of anxiety, responsibility, and care is thrown upon the surgeon, who is now unceasingly engaged in combating septic disease; and in order to keep down that rate of mortality which is the direct consequence of septic hospital influences, he is driven to the employment of elaborate and complicated methods of antiseptic treatment. Cleanliness in its broadest sense is the best and most efficient antiseptic. If the constructors and conductors of hospitals were acquainted with or would adopt those hygienic rules on which hospitals should be built and managed, if hospitals were not overcrowded, if the system of ventilation was perfect, if there was a continuous water-supply, a proper isolation of wards and distribution of patients, the causes of septic diseases would not be generated. Those foul and filth-begotten diseases, pyæmia and hospital gangrene, would disappear, and antiseptics, in the absence of septic influences, would become unnecessary. Contamination of hospital air would be prevented; we should not, as now under defective hygienic arrangements, first allow the pollution to take place, and then be driven to the use of antiseptics in order to prevent infection of wounds by the already septic-laden atmosphere. Under the present system we begin at the wrong end. Instead of preventing the possibility of atmospheric contamination by perfect hospital hygiene, we allow the septic poison to be engendered, and then, before it can be implanted on the wound, seek to destroy it by the employment of chemical agents.

"With regard to anæsthetics, I have little to say. Ether is invariably used at Boston, and is preferred to chloroform by many hospital-surgeons in other American cities. I saw it given in some operation cases at the Massachusetts General Hospital, which has the great honor and privilege of being the institution in which anæsthesia was first employed in any surgical operation; it was administered here on a sponge, without any apparatus or complicated contrivance.

"Except in Boston, the Museums are still in an undeveloped condition. That of Dr. Mott, at New York, was unfortunately destroyed by fire; but Dr. Wood, with characteristic energy, is trying to establish one at Bellevue. At Philadelphia the splendid collection of Hyrtl's injections have lately been acquired by purchase. But there is one museum which is so unique, so admirably arranged, and so interesting that I must direct your attention to it for a few minutes. It is the Museum of the Army Medical Department at Washington. This magnificent collection, illustrating not only every possible variety of gunshot and arrow injury, but also those diseases which are more fatal than the bullet to an army in the field or in camp, has, under the able superintendence of Surgeon-General Barnes and of Drs. Otis and Woodward, been most admirably arranged and catalogued. The collection itself is well known in Europe through the medium of those beautifully illustrated and ably collated medical histories of the great War of the Rebellion which have been published under the superintendence of the Medical Department of the United States Army. Many of the specimens in this museum are quite unique."

To the Editor of the Philadelphia Medical Times:

Dear Sir,—Having endured much fruitless discussion as to whether specialties are really a necessity of medical centres, and, if so, why so, I was greatly delighted to learn, from a communication in a late issue, that the necessity "occurs as the result of an organization in man which leads him to take cognizance of results as evidences are presented to him in the practical working of things."

We need, now, no more discussion of the subject: it may be considered definitely and finally settled by this lucid exposition.

Yours, gratefully,

D. S. M.

Camp McDermit, Nevada, November 25, 1874.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—Will you be good enough to inform me, through your valuable journal, of the extent of Mr. Durham's researches with regard to the condition of the brain in sleep, and when and where they were published?

I infer from the report of a meeting of the Royal Medical and Chirurgical Society, published in the *London Medical Times and Gazette* for October 24, 1874, p. 486, that Mr. Durham has advanced the theory that "narcotics" produce contraction of the blood-vessels. Eight months ago my preceptor, Prof. Eliot, of the District of Columbia, suggested to me the same theory as original, with a view to have it demonstrated, since which time the subject has engaged my attention and study.

Respectfully,

George M. Kober,
A. A. Surg., U.S.A.

MARRIED.

November 12, at Maple Hill, Montgomery County, by Friends' ceremony, Miss Frances Stockton Corson, daughter of Dr. Hiram Corson, to Richard H. Day, of Philadelphia.

At Fort Bridger, Wyoming Territory, Miss Ada Carter, daughter of Judge William A. Carter, to Joseph K. Corson, Assistant-Surgeon, U.S.A., son of Dr. Hiram Corson, of Montgomery County, Pennsylvania.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

The next conversational meeting of the Philadelphia County Medical Society will be held Wednesday, December 23, at 8 o'clock P.M.

Dr. J. M. Boisnot will read a paper entitled "A Case of Purpura Hæmorrhagica requiring Transfusion."

All regular practitioners in the city are invited.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM DECEMBER 8 TO DECEMBER 14, 1874, INCLUSIVE.

Smith, J. R., Surgeon.—Granted leave of absence for fifteen days. S. O. 242, Military Division of the Atlantic, December 9, 1874.

Kinsman, J. H., Assistant-Surgeon.—Granted leave of absence for nineteen days. S. O. 270, Department of Dakota, December 8, 1874.

Matthews, W., Assistant-Surgeon.—Assigned to duty at Fort Wood, New York Harbor, as Post-Surgeon. S. O. 241, Military Division of the Atlantic, Dec. 7, 1874.

Brown, P. R., Assistant-Surgeon.—Assigned to duty at Fort Hamilton, New York Harbor. S. O. 241, c. s., Military Division of the Atlantic.

Finley, J. A., Assistant-Surgeon.—Assigned to duty at Fort Monroe, Va. S. O. 241, c. s., Military Division of the Atlantic.

Bedal, S. S., Assistant-Surgeon.—Assigned to duty at Fort Wadsworth, New York Harbor. S. O. 241, c. s., Military Division of the Atlantic.

Wilcox, T. E., Assistant-Surgeon.—Assigned to duty at Fort Leavenworth, Kansas. S. O. 201, Department of the Missouri, December 4, 1874.